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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
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In the Matter of )  
)  
Amendment of Parts 1, 21 and 74 to Enable )  
Multipoint Distribution Service )  
and Instructional Television Fixed )  
Service Licensees to Engaged in Fixed )  
Two-Way Transmissions )

MM Docket No. 97-217

File No. RM-9060

To: The Commission

COMMENTS OF ITFS PARTIES

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## SUMMARY

The ITFS Parties are numerous ITFS applicants and licensees, representing educators who are among the oldest, largest and most innovative ITFS operators in the country. They are vitally interested in the issues raised by this proceeding.

The ITFS Parties generally support the Commission's proposals to authorize two-way communications, cellularization and other flexible technical operations of MMDS and ITFS stations. With appropriate safeguards, the proposed rule changes would increase the flexibility of ITFS licensees to engage in a variety of two-way voice, video and data communications (including high speed Internet access). This flexibility could be valuable to the delivery of educational services and cost effective two-way service could enhance the distance learning experience by allowing it to be more truly interactive. Internet access via the 2.5 GHz band could help schools obtain service at costs far less, and speeds far greater, than can now be obtained for many schools.

The ITFS Parties' major concern is interference caused by two-way and cellularized operations to existing ITFS stations, and the ITFS Parties urge that the Commission be vigilant in its protection of ITFS stations from interference.

With respect to ITFS programming and excess capacity use requirements in the digital world, the ITFS Parties philosophically are of the view that the Commission should give licensees the greatest possible regulatory flexibility. However, the ITFS community and the wireless cable community have reached a mutually satisfactory consensus on these issues, and the ITFS Parties support that compromise proposal and urge the FCC to adopt it in total.

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To: The Commission

**COMMENTS OF ITFS PARTIES**

Alliance for Higher Education, Arizona Board of Regents for Benefit of the University of Arizona, Board of Regents of the University of Wisconsin System, California State University, Calnet, Coastal Educational Broadcasters, Inc., Cooperating School Districts of Greater St. Louis, Daytona Beach Community College, Focus on Education, Greater Dayton Public Television, Inc., INTELECOM Intelligent Telecommunications, KCTS Television, Kentucky Authority for Educational Television, Missouri Baptist College, Network for Instructional TV, Inc., New Orleans Educational Telecommunications Consortium, Northeastern Educational Television of Ohio, Inc., the Ohio State University, Oregon State System of Higher Education, Pasadena Unified School District, Palomar College, San Diego County Superintendent of Schools, San Diego State University, Santa Ana Unified School District, South Carolina Educational Television Commission, Spring Branch Elementary School District, St. Bernard Parish Schools, St. Louis Community College District, St. Louis Regional Educational and

Public Television Commission, State of Wisconsin--Educational Communications Board, Troy State University, University of Maine System, University of Minnesota, University of Texas/MD Anderson Health Science Center, University of Wyoming, University System of the Ana G. Mendez Educational Foundation, and West Central Illinois Educational Telecommunications Corporation (known as "CONVOCOM") (collectively, the "ITFS Parties"), by their counsel, submit these comments in response to the Commission's *Notice of Proposed Rulemaking* in MM Docket No. 97-217, FCC 97-360 ("*NPRM*"), relating to the transmission of two-way signals by MMDS and ITFS stations, other changes to increase flexibility of the FCC's technical rules, and ITFS programming and excess capacity use agreement requirements for digital systems.<sup>1</sup>

#### Introduction

The ITFS Parties are public and private colleges, universities and university systems, school districts, community colleges, consortia of educators engaged in distance learning, public broadcasters and governmental or non-profit educational telecommunications entities. The ITFS Parties are experienced licensees of ITFS stations providing critical educational services to students and other learners in schools, workplaces and homes; indeed, among the ITFS Parties are operators of some of the oldest, largest and most innovative ITFS systems in the country. Many of the ITFS Parties either contemplate or are already participating with wireless cable operators in the development and operation of educational/wireless cable systems.

The ITFS Parties generally support the Commission's proposals to authorize two-way communications, cellularization and other flexible technical operations of MMDS and ITFS

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<sup>1</sup>/ By Order *Extending Time for Filing Comments and Reply Comments*, DA 97-2547 (released December 5, 1997), the Chief, Mass Media Bureau, extended the comment date in this proceeding through January 8, 1998. Thus, these comments are timely filed.

stations. With appropriate safeguards, the proposed rule changes would increase the flexibility of ITFS licensees to engage in a variety of two-way voice, video and data communications (including high speed Internet access). This flexibility could be valuable to the delivery of educational services and cost effective two-way service could enhance the distance learning experience by allowing it to be more truly interactive. Internet access via the 2.5 GHz band could help schools obtain service at costs far less, and speeds far greater, than can now be obtained for many schools.

The ITFS Parties' major concern is interference caused by two-way and cellularized operations to existing ITFS stations, and the ITFS Parties urge that the Commission be vigilant in its protection of ITFS stations from interference. With respect to ITFS programming and excess capacity use requirements in the digital world, the ITFS Parties believe the Commission should also give licensees the greatest possible regulatory flexibility. However, the ITFS community and the wireless cable community have reached a mutually satisfactory accommodation on these issues, and the ITFS Parties support that compromise proposal and urge the FCC to adopt it.

These issues and others are addressed in more detail below.

I. Two-Way Transmissions and Other Technical Rule Changes

The *NPRM* proposes changes in the rules to permit the transmission of two-way communications and the development of cellularized systems on MMDS and ITFS channels. Under these rules, the FCC would allow MMDS and ITFS licensees to use their 6 MHz channels and 125 kHz response channels for return links from receive sites or subscribers, which links could communicate with response station "hubs" which may or may not be located at the main

ITFS/MMDS transmission facility. The FCC would also increase flexibility in the operation of booster stations, allowing them to originate transmissions rather than merely retransmit the signals of a main transmitter. Together, these changes would permit a cellular-like system design and increase capacity through frequency re-use.

The *NPRM* also proposes to allow MMDS and ITFS stations to use subchannels (multiple signals over a single 6 MHz channel) or superchannels (a single signal over multiple adjacent 6 MHz channels). The resulting flexibility is anticipated to permit more efficient use of available spectrum.

The ITFS Parties support these changes in the FCC's rules, subject to the following understandings.

First, the rules must permit all licensees -- including ITFS licensees acting on their own -- to take advantage of digital technical advances and flexible system designs. Although many of the engineering techniques that would be available under the rules are most often going to be implemented by ITFS licensees in the context of an excess capacity agreement with a wireless cable operator, some ITFS licensees will have both the capability and need to do so on their own. This is likely to be particularly true with ITFS operators in three circumstances -- those that wish to enhance the interactivity of their telecommunicated instruction by audio, video and data return links instead of the audio-only return links now possible over ITFS response channels and telephone return links; those that seek to offer high speed Internet access services to their schools and other receive sites over ITFS frequencies; and those that seek to fill in coverage gaps in their systems using boosters or beambenders. The rules as proposed appear to be consistent with this principle.

Second, the rules must require that all facilities operating on ITFS channels be licensed to the ITFS licensee of those channels, not its excess capacity user or some third party. The proposed rules appear to be acceptable in this respect. Although in certain circumstances they allow facilities of response stations, response station hubs and booster stations operating on both MMDS and ITFS channels to be shared, and they allow response stations and response station hubs on ITFS channels to be operated by persons other than the ITFS licensee (such as an ITFS receive site, a wireless cable operator or a wireless cable subscriber), only the relevant ITFS licensee can be the licensee of such facilities on its channels.<sup>2</sup>

Third, as noted in the section below on processing rule changes, the rules must protect ITFS operators from interference from two-way or booster operations, regardless whether the ITFS licensee objected to the application proposing such operations.

CTN Filing. On this latter point, the Catholic Television Network ("CTN") has expressed special concern that two-way operation of MMDS or ITFS stations may have adverse interference consequences for existing ITFS operators as a result of "brute force overload." Consequently, CTN has urged that a two-way system be permitted only if there is sufficient

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<sup>2/</sup> There is a distinction between high power boosters (operating with power in excess of -9 dBW EIRP), for which it is clear that licenses must be held in the name of the ITFS licensee, and lower power devices (commonly referred to as beambenders). These lower power devices would be subject to a notification procedure only, and they would allow the notification procedure to be instituted by excess capacity users who have agreements with affected ITFS licensees. WCA has explained that these devices do not need prior FCC approval and are expected to be installed quickly upon discovery of coverage gaps. The rules require only that the FCC be notified within 48 hours of installation. WCA believes that, in such circumstances, the excess capacity user should be able to file notifications covering all channels employed by the beambender as it would be difficult to coordinate separate filings by each participating MMDS or ITFS licensee on such short notice. The ITFS Parties concur with this approach, so long as it is clear that the user does not obtain any FCC license or authorization rights in the channels by virtue of its role in the notification process.

frequency separation between downstream and upstream transmissions. CTN specifically urges that the E, F, G and H channel groups be "refarmed." The idea is to create contiguous bands for downstream transmissions at 2500-2620 MHz (i.e., the A, B, C, D groups and Channels E1, F1, E2 and F2) and for upstream transmissions at 2644-2690 MHz (i.e., the G and H groups and all 125 KHz response channels) with a guardband at 2620-2644 MHz (i.e., Channels E3, F3, E4 and F4).

Competent engineers associated with the ITFS Parties have considered these issues and have concluded that the interference assumptions and calculations underlying the proposed rules are conservative and should provide sufficient interference protection. They believe that incidents of brute force overload, if they happen, will be isolated and can be cured with appropriate technical solutions. Moreover, CTN's proposed "refarming" solution creates a host of problems. At the outset, if one assumes that a 24 MHz guardband is really necessary, the CTN proposal essentially takes valuable spectrum (the four 6 MHz channels comprising the guardband) out of use, making the approach spectrally inefficient.<sup>3/</sup> It would take away the opportunity for ITFS licensees on the A, B, C and D groups to engage in two-way communications. Also, it requires ITFS licensees on the G group to be moved to some other group, often probably to E1, F1, E2 and F2. This would cause a permanent loss of the G group in the area for future ITFS purposes, while the replacement educational channels are less desirable because they are part of the reserve of MMDS BTA authorization holders, who

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<sup>3/</sup> In CTN's proposal, the guardband channels would be MMDS channels available for downstream use. If CTN believes that reception of these channels would really be subject to brute force overload, however, it must regard them to be of little or no use in the overall system.

acquired the channels at auction and have broad rights in them. The ITFS Parties believe that this "cure" would be much worse than the purported "disease." Rather than force an unnecessary and spectrally inefficient solution that may adversely affect ITFS licensees on each of the ITFS channel groups and may result in the permanent replacement of good ITFS channels with bad ones, the FCC, as well as CTN, should focus more simply on crafting rules that require the proponent of a two-way, cellularized system to resolve interference problems caused by the system, and to shut down any interfering operations until a resolution can be achieved. The risk of inappropriate system design, engineering errors, defective or careless facility construction and even unforeseen or anomalous problems should be on the operator of the two-way system. This will provide adequate incentives for operators to avoid interference.

## II. Processing Rules

In the original petition for rulemaking in this proceeding, the Wireless Cable Association International, Inc. ("WCA") and others urged the FCC to adopt a new processing system for boosters and response stations. This new system would include an automatic grant feature that was supposed to make it possible to eliminate detailed FCC interference screening of these applications. If no petition to deny were filed, the application would be granted.

The purpose of the WCA's proposal was to avoid the substantial and frustrating delay in processing that, despite best efforts of an overburdened staff, has too often characterized the MMDS and ITFS services. The ITFS Parties are in complete sympathy with the desire of the WCA to find a way to make FCC processing of applications prompt and efficient. As the Commission recognized, however, there is legitimate concern that many ITFS licensees will not have the technical wherewithal to evaluate complicated interference issues, or the financial

resources to hire engineering consultants to do so

In the *NPRM*, the Commission declined to propose an automatic grant procedure. The FCC does clearly suggest, however, that actual interference caused by a two-way or cellularized system has to be resolved, even if a petition to deny is not filed. Although the Commission's proposal seems to safeguard ITFS licensees from interference, it unfortunately does not adequately address WCA's plea for an application process that will not get bogged down in years of fruitless delay. The ITFS Parties at this time do not have a solution to suggest to this dilemma. However, they state here that, if the Commission were to create and enforce ironclad interference protection of licensed ITFS receive sites in or near a two-way or cellularized environment,<sup>4/ 5/</sup> the ITFS Parties could support the WCA's proposal for an automatic grant process.<sup>6/</sup>

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4/ Undersigned counsel for the ITFS Parties has had discussions with representatives of the WCA relating to whether an operator of a two-way or cellularized system would have to cure interference to an ITFS receive site where such interference results from receive antennas that do not meet the FCC's minimum performance standards specified in Section 74.937 of the Rules. The ITFS Parties concur that wireless cable operators do not have to cure interference resulting solely from use of less than standard reference antennas. However, if the receive site was previously operating satisfactorily, the wireless cable operator should still be required actively to cooperate with the ITFS licensee or receive site to indentify the problem at the receive site and advise about appropriate technical fixes.

5/ It would also be helpful for the FCC to provide a prior, special opportunity for ITFS stations to update their receive site lists so as to achieve protection for all existing and planned sites. Unfortunately, the experience of undersigned counsel is that licensing of receive sites often lags behind actual receive site activity. A specific period for ITFS licensees to notify the FCC of receive sites that are no longer in service, and to seek authorization for sites that have been added so that they can receive protection, would be useful for all parties.

6/ The ITFS Parties recognize, however, that the agreement between the ITFS and wireless cable community on a variety of issues, discussed at page \_\_ of these comments, does not support an automatic grant procedure, and the ITFS Parties are not urging the FCC to implement such a procedure at this time.

The FCC also seeks comment on a variety of other processing issues. The ITFS Parties support the proposal for a rolling, one-day filing window system for response station hubs and signal boosters, with a prior one-week window during which all applications received would be deemed to have been filed the same day. Subject to interference protection of existing ITFS operations, the ITFS Parties support the proposal for the simultaneous grant of all such response station hub and boosters applications filed during a given window, leaving it up to the parties to resolve privately any interference that may result from the operation of all such facilities.<sup>27</sup>

The ITFS Parties would not support a change in filing procedures for ITFS main station facilities. They believe that the window approach, preceded by advance notice, provides the best chance for ITFS licensees and other educators to be aware of filing opportunities and take advantage of them. The ITFS Parties would urge, however, as they have repeatedly in the past, that the FCC should regularly open filing windows (such as quarterly) so as to provide a much-needed opportunity for applicants to pursue new and modified facilities on a timely basis, avoid the crushing load of applications filed in windows that are opened once every several years or so, and eliminate the need for parties seeking STA's to make major changes.

With respect to "no objection" letters, the ITFS Parties believe that, in the absence of an allegation of abuse or fraud in the specific instance, the FCC should accept these letters on their face. The ITFS Parties have not experienced abuse in the process of providing consents and

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<sup>27</sup> In this respect, it is critical that this system not be applied to new ITFS main station applications or changes in main station facilities. Mutually exclusive applications for such facilities should be subject to the comparative selection procedure set forth in Section 74.913 of the Rules (subject, of course, to the outcome of the *Notice of Proposed Rulemaking* in MM Docket No. 97-234, GC Docket No. 92-52 and GEN Docket No. 90-264, dealing with the possible auctioning of mutually exclusive ITFS frequencies.

have found themselves to be competent to make judgments about engineering proposals proffered by wireless cable operators. The ITFS Parties understand that these judgments may be more difficult in a two-way and cellularized environment, however. Therefore, the Commission may want to consider requiring that any consent letters, to be effective, specifically require the ITFS licensee's authorized receive sites to be protected from interference by the party seeking consent and any excess capacity users associated with the ITFS licensee and the party seeking consent.

### III. Channel Loading

The *NPRM* asks whether the channel loading rules adopted three years ago have been beneficial to ITFS licensees and wireless cable operators. The response of the ITFS Parties is a resounding "yes." The ITFS Parties cannot contemplate going back to a regulatory regime (in either the analog or digital world) that requires the minimum ITFS programming associated with an ITFS channel to be transmitted on that channel.

Indeed, the proposed rules would permit an ITFS licensee to satisfy its minimum ITFS programming requirements and recapture rights on its own channels or on channels not authorized to it but which are included in the wireless system. This would make possible system configurations using entire channel groups for excess capacity purposes, either for downstream or for upstream, response use. The ITFS Parties support this change in the rules so long as the ITFS licensee's legitimate expectation of renewal is not adversely affected by the fact that none of its programming was transmitted on its own channels. The proposed rules (Section 74.931(e)(9)) state that "the use of channel mapping or channel loading consistent with the rules shall not be considered adversely to the ITFS licensee seeking renewal or otherwise." This

provision adequately addresses that concern.

#### IV. Channel Swaps

The ITFS Parties are also concerned about what happens when an ITFS excess capacity agreement providing for the use of all a licensee's channels for other purposes comes to an end and the licensee loses the right to transmit its programming on other system channels. If its channels have been integrated into a complicated, carefully engineered system for use as response channels, for example, it might not be easy, or even possible, to convert them back to ITFS use without causing interference to some other party. Thus, the *NPRM* wisely inquires whether an ITFS licensee should be allowed to use all of its channels for upstream communications. The ITFS Parties are of the view that each ITFS licensee should always preserve at least one downstream 6 MHz channel which, if operated digitally (as is contemplated in this sort of a system), would provide multiple video program tracks for future ITFS use. In order to make this possible and still permit whole groups to be converted to response channel use, the FCC has (at the ITFS Parties' earlier suggestion) inquired whether it should routinely and ministerially grant applications by ITFS licensees to exchange individual ITFS channels. Thus, for example, if a wireless cable operator proposes to use both the A and B groups in its system for response channels, the A and B licensees would first require that at least one of their channels be traded for channels on the C, D or G groups. This would permanently assure the A and B licensees of a downstream channel. Obviously, this would require the cooperation of the C, D or G group licensees, which consent would have to be procured by the wireless cable operator. Nevertheless, the ITFS Parties urge the FCC to include a channel swap procedure in the new rules. The ITFS Parties also suggest that such an exchange of channels be mandatory for any

proposal to use an entire ITFS channel group for return path use (unless the ITFS licensee already has other downstream channels as a result of a four-channel waiver). The ITFS Parties believe that it would be wise public policy to require each ITFS licensee to retain at least one licensed channel for downstream use.

V. Future Engineering Flexibility

The proposed rules provide that, once response channel operations are authorized and constructed, those links and their associated hubs would thereafter be protected from interference. The same is true for booster stations. This raises a concern about future engineering flexibility for an ITFS station operating on an adjacent channel in the same area, or co- or adjacent channels in nearby areas. It may become infinitely harder to demonstrate that a proposal to relocate, raise power, change polarization or make other changes will not cause interference to a response station hub or booster. This problem is inherent in the use of ITFS channels for a cellularized, two-way service, and it is difficult if not impossible for the FCC to devise a mandatory method of "unscrambling" mixed use systems after they are constructed. Having given much thought to this issue, the ITFS Parties have concluded that, if the prospect of two-way ITFS use is sufficiently attractive to an ITFS licensee, either for educational purposes or as a means of enhancing the value of an ITFS excess capacity arrangement, the risk of not being able to return to the status quo ante may simply be a price that is worth paying. This is another reason, however, for the FCC to require that an ITFS licensee never use all of its channels for upstream use. Other than that, each licensee, in evaluating whether to participate in a mixed use system or to consent to such a system nearby, must look to the future and ensure that its own anticipated needs can be satisfied with the facilities that would result from its

participation or consent.

#### VI. Digital ITFS Capacity Issues

In addition to the technical questions raised by the *NPRM*, there are very difficult issues involving requirements for excess capacity agreements in a digital system. The National ITFS Association ("NIA") has made a filing on this very issue which has impacted on FCC review of excess capacity agreements contemplating digital operation, causing the FCC to defer approval of such provisions.<sup>8/</sup>

Representatives of the ITFS Parties have engaged in extensive discussion of these issues in connection with considerations by the NIA and the WCA. The ITFS Parties have reached the following conclusions.

First, with respect to minimum ITFS programming requirements, the FCC should continue to require ITFS licensees only to provide (at a minimum) 20 hours per channel per week of ITFS programming. Given the disparate needs and capabilities of ITFS licensees nationwide, this requirement, which was originally based on the notion that 20 hours per week (an average of 4 hours per channel per school day) was "substantial" use, still makes sense. The fact that a licensee participates in a digital system, making possible far greater capacity, does not change the licensee's need for or capability to provide programming. Many ITFS licensees do not have the resources to do more.

With respect to digital reservation or recapture requirements, the ITFS Parties are aware that the NIA's 1996 filing urged the FCC to require excess capacity agreements to provide for reservation of a 6 MHz channel for ITFS purposes -- 25% of the total digital capacity of an ITFS

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<sup>8/</sup> The NIA "Petition for Clarification" was filed November 6, 1996.

station. The ITFS Parties, however, have been unable to support that formulation, which could result in the mandatory reservation of eight or more simultaneous, full-time programming streams, depending on the current state of the art in digital compression. This will very often be more capacity than an ITFS licensee needs. Moreover, philosophically, the ITFS Parties believe that they should be free, within certain minimal boundaries relevant to all ITFS licensees, to evaluate their current and future capacity needs and negotiate reservation or recapture provisions consistent with those needs. Stated another way, ITFS licensees should not be required to retain capacity they don't anticipate needing at the expense of receiving financial, programmatic or facility concessions that they could obtain if they only retained the capacity they actually need.

In the absence of any consensus between the ITFS and wireless cable communities, the ITFS Parties would support a requirement that, at a minimum, ITFS licensees should be able to retain or recapture, without financial or operational detriment, a number of video programming streams equal to the number of ITFS channels made available for excess capacity use. This would mean that a typical four-channel ITFS licensee would be have the right to use four full-time program tracks, the same capacity it would have if it operated its station in an analog environment without leasing excess capacity. In recognition of the substantial investment by the wireless cable operator in constructing a digital system, the ITFS Parties would also support a change in the FCC's policies to allow excess capacity agreements to run for 15 years. This time frame is the customary period for traditional cable franchises, and it would hopefully enable wireless cable operators to access capital markets that traditionally support wired cable.

NIA-WCA Consensus. The foregoing notwithstanding, shortly before the deadline for these comments, an consensus was reached between the NIA and the WCA on digital capacity

and related issues. A copy of the resulting "Joint Statement of Position" is attached to these comments. The consensus contemplates a recapture formula based on percentages of capacity. Thus, 5% of an ITFS licensee's digital capacity (for a four-channel station, the equivalent of nearly two full-time program tracks assuming 8 to 1 compression rates) would be reserved solely for ITFS use. An additional 20% would be subject to recapture for ITFS purposes. That recapture right could be deferred for five years, and an excess capacity agreement could provide that a licensee may recapture no more than 5% additional capacity a year (with no more than a year's notice). The consensus provides that the parties may agree to an economic adjustment in consideration as a result of recapturing capacity, with two conditions: the adjustment should not be disproportionate to the amount of capacity recaptured and an ITFS licensee cannot lose any "baseline consideration."<sup>9</sup> The consensus also covers a number of other issues (many of which are considered elsewhere in these comments and are consistent with the position of the ITFS Parties.)<sup>10</sup>

The ITFS Parties support the consensus, which was the result of over a year's hard work by representatives of a substantial portion of ITFS licensees and wireless cable operators. The

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<sup>9</sup>/ "Baseline Consideration" is defined to include (1) any transmitters, transmit antenna, combiners and waveguide necessary to operate the station ("Station Equipment"), (2) any transmit site lease costs necessary to house the Station Equipment, and (3) the utility and maintenance costs necessary to maintain and operate the Station Equipment. In other words, an ITFS licensee's recapture of capacity cannot result in its having to assume the costs of operating its station's transmission facilities.

<sup>10</sup>/ Among other important terms of the consensus, Item VIII contemplates that existing ITFS lease agreements (that is, those that are entered into prior to the release of the FCC's decision in this proceeding) should be grandfathered for their duration. The ITFS Parties view this provision as critical to their well-being. If they have to go back and re-negotiate excess capacity agreements to obtain more recapture capacity, for example, they will be required to make other concessions that may seriously undermine their expectations and damage their ability to use the capacity to which they already have access.

ITFS Parties urge the FCC to adopt it without change. The terms would be good for ITFS, and apparently also good for wireless cable. It would make sound public policy.

VII. Internet Access

Finally, the ITFS Parties note their substantial interest in the use of ITFS channels for Internet access. The ITFS Parties are cognizant of the FCC's seminal 1994 decision in the George Washington University case, which allowed GWU to contract to use its ITFS station in Washington, D.C. for Internet access, and to satisfy its ITFS programming requirements through Internet transmissions. The ITFS Parties strongly endorse the concept of Internet access over ITFS stations and urge the FCC to adopt rules that allow ITFS licensees to use their capacity for Internet access and, in the context of excess capacity agreements, to satisfy their substantial use requirements with Internet access. The Internet has become a valuable learning tool for both K-12 and higher education. Many school districts, colleges and universities pay substantial costs to access the Internet via ISDN or T-1 lines, and they would benefit greatly by excess capacity arrangements that make high speed Internet access available in their classrooms and libraries.

The regulatory problem with Internet access is the difficulty of quantifying and documenting actual use for the purpose of satisfying minimum use requirements in an excess capacity arrangement. Until there is more experience in this area, the ITFS Parties urge the FCC to find that the availability of Internet access at ITFS receive sites during the entire school day at a data transmission rate satisfactory to an ITFS licensee, together with a reasonable expectation on the part of such ITFS receive sites that Internet access use will collectively amount to at least 20 hours per channel per week, satisfies the licensees minimum use requirements for the purposes of an excess capacity agreement. The ITFS Parties also urge the FCC to make clear

that ITFS licensees who do not lease excess capacity can use their channels for Internet access.

This point was not made clear in the FCC's Public Notice on the provision of Internet service on MDS and leased ITFS frequencies, DA96-1720 (released October 17, 1996).

Conclusion

The ITFS Parties urge the Commission to adopt rules governing two-way and cellularized MMDS and ITFS systems, and requirements for digital ITFS excess capacity agreements, consistent with these comments.

Respectfully submitted,

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January 8, 1998

## JOINT STATEMENT OF POSITION

For over a year, representatives of the National ITFS Association, Inc. ("NIA") and the Wireless Cable Association International, Inc. ("WCA") have been meeting in an effort to come to agreement on issues of mutual interest deriving from the emerging use of digital technology on Multipoint Distribution Service ("MDS") and Instructional Television Fixed Service ("ITFS") channels. The underlying goal of these negotiations has been to craft a regulatory environment that assures that the educational community reasonably shares in the benefits that digital technology will permit, while permitting the wireless cable industry to become a viable competitive force in the marketplace (which benefits both the wireless cable industry and the ITFS community). After significant compromise by each side, NIA and WCA have come to agreement that the public interest will best be served by incorporation of the following concepts into the rules and policies of the Federal Communications Commission. Moreover, NIA and WCA have agreed to create a standing working group to address current and future issues of concern. Because the following concepts reflect a series of compromises between the parties on matters that are inextricably intertwined, NIA and WCA jointly urge the Commission to adopt them en toto without change.

- I. In order to assure the substantial educational use of the ITFS spectrum, each ITFS licensee shall, at a minimum, have the right to use 25% of capacity of its channels. In any digitized system the ITFS licensee shall be required to deliver no less instructional material than is currently required for analog ITFS systems under Section 74.931(e) of the Commission's Rules.
- II. In order to assure the immediate availability of capacity for immediate ITFS usage, each ITFS licensee leasing capacity for digital usage shall refrain from leasing an amount equal to no less than 5% of the capacity of its channels.
- III. Each ITFS licensee that leases excess capacity for digital services must maintain the ability to recapture for the transmission of ITFS programming at least an additional 20 % of the capacity of the channels it leases. The lowest permissible annual rate of recapture shall be 5% of the capacity of its ITFS channels, with a maximum one year advance notice per instance of recapture. The right to recapture may be deferred during the first five years of any excess capacity lease agreement upon agreement of the parties. The parties may agree to an economic adjustment of the ITFS licensee's consideration under the agreement upon recapture, provided that any economic detriment shall not be disproportionate to the amount of capacity recaptured and shall

not include any "Baseline Consideration." "Baseline Consideration" shall be defined to include: (1) any transmitters, transmit antenna, combiners and waveguide necessary to operate the station ("Station Equipment"), (2) any transmit site lease costs necessary to house the Station Equipment; and (3) the utility and maintenance costs necessary to maintain and operate the Station Equipment.

- IV. All ITFS licensees should be permitted to "channel load" any or all of their capacity onto any ITFS channel within the same multi-licensee system. Such "channel loading" shall not be considered negatively at the time the ITFS licensee seeks renewal of its authorization.
- V. Any ITFS licensee should be permitted to "swap" channels with any other ITFS or MDS licensee in the 2.5 GHz band operating in the same geographic area. Particularly in order to promote the introduction of advanced technologies, applications for Commission approval of such swaps should be given expedited consideration by the Commission.
- VI. In recognition of the difficulties that may be faced in converting spectrum used for return paths to downstream uses, each ITFS licensee that leases channels to be employed for return paths shall be required to maintain at least 25% of its licensed channels to be used for downstream transmissions during the term of the lease and following termination of its leasing arrangement.
- VII. ITFS licensees should be permitted to enter into excess capacity leases of up to fifteen years duration, provided that any lease extending beyond the term of a licensee's authorization provides for termination of the lease in the event the Commission denies an application for renewal.
- VIII. Excess capacity lease agreements that provide for digital usage and were entered into prior to the release of an order adopting these concepts shall be grandfathered for their duration.
- IX. ITFS licensees should have opportunities equal to those afforded MDS licensees to implement advanced technologies utilizing their spectrum.
- X. Authorizations for return paths and boosters on ITFS channels should be issued in the name of the ITFS licensee of that channel.

XI. The Commission should adopt rules providing for the expedited processing and granting of applications to introduce advanced technologies on MDS and ITFS channels, provided that the rules assure incumbents protection against any impermissible harmful electrical interference that results upon the initiation of service. In the application of expedited processing and grant procedures for two-way systems, ITFS licensees must be protected from impermissible interference caused by two-way or booster operations, whether or not an ITFS licensee has petitioned to deny an application and/or whether or not the licensee is a participant in an excess capacity agreement.

XII. All excess capacity leases shall provide that the ITFS licensee shall have the right to use any Internet services offered over the system at no greater than the lowest prevailing commercial rate and shall have reasonable access, at rates to be negotiated between the parties, to other services offered over the system (such as addressability and two-way capability).

NATIONAL ITFS ASSOCIATION, INC.

By: 

Theodore Steinke

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WIRELESS CABLE ASSOCIATION INTERNATIONAL, INC.

By: 

Andrew Kreig

President

Date: January 7, 1998.